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| APPLICATION NO.                 | FILING DATE   | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---------------------------------|---------------|----------------------|---------------------|------------------|
| 10/087,793                      | 03/05/2002    | Gideon Stupp         | 1076-US             | 2994             |
| 24505 75                        | 90 11/12/2003 |                      | EXAMINER            |                  |
| DANIEL J SWIRSKY<br>PO BOX 2345 |               |                      | SUN, XIUQIN         |                  |
| BEIT SHEMES                     | SH, 99544     |                      | ART UNIT            | PAPER NUMBER     |
| ISRAEL                          |               |                      | 2863                |                  |
|                                 |               |                      |                     |                  |

DATE MAILED: 11/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

|   | Application No.         | Applicant(s)   |  |  |  |  |
|---|-------------------------|--|--|--|--|--|
| •   |                         | , ,  |  |  |  |  |
| Office Action Summary   | 10/087,793              | STUPP, GIDEON  |  |  |  |  |
| Office Action Summary   | Examiner                | Art Unit   |  |  |  |  |
| The MAILING DATE of this communication and  | Xiuqin Sun              | 2863   |  |  |  |  |
| The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period f r Reply  |                         |  |  |  |  |  |
| A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).  - Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).  Status |                         |  |  |  |  |  |
| 1) Responsive to communication(s) filed on  | <u> </u>                |  |  |  |  |  |
| 2a) ☐ This action is <b>FINAL</b> . 2b) ☑ Thi   | s action is non-final.  |  |  |  |  |  |
| 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.  |                         |  |  |  |  |  |
| Disposition of Claims   |                         |  |  |  |  |  |
| 4)⊠ Claim(s) <u>1-18</u> is/are pending in the application.   |                         |  |  |  |  |  |
| 4a) Of the above claim(s) is/are withdrawn from consideration.  |                         |  |  |  |  |  |
| 5) Claim(s) is/are allowed.   |                         |  |  |  |  |  |
| 6)⊠ Claim(s) <u>1,2,7-11,16 and 17</u> is/are rejected.   |                         |  |  |  |  |  |
| 7) Claim(s) <u>3-6,12-15 and 18</u> is/are objected to.   |                         |  |  |  |  |  |
| 8) Claim(s) are subject to restriction and/or election requirement.   |                         |  |  |  |  |  |
| Application Papers  |                         |  |  |  |  |  |
| 9) The specification is objected to by the Examiner.  |                         |  |  |  |  |  |
| 10) The drawing(s) filed on <u>05 March 2002</u> is/are: a) accepted or b) objected to by the Examiner.   |                         |  |  |  |  |  |
| Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  11) The proposed drawing correction filed on is: a) approved b) disapproved by the Examiner.   |                         |  |  |  |  |  |
| If approved, corrected drawings are required in reply to this Office action.  |                         |  |  |  |  |  |
| 12) The oath or declaration is objected to by the Examiner.   |                         |  |  |  |  |  |
| Priority under 35 U.S.C. §§ 119 and 120   |                         |  |  |  |  |  |
| 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).   |                         |  |  |  |  |  |
| a) ☐ All b) ☐ Some * c) ☐ None of:  |                         |  |  |  |  |  |
| 1. Certified copies of the priority documents have been received.   |                         |  |  |  |  |  |
| 2. Certified copies of the priority documents have been received in Application No  |                         |  |  |  |  |  |
| <ul> <li>3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</li> <li>* See the attached detailed Office action for a list of the certified copies not received.</li> </ul>   |                         |  |  |  |  |  |
| 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  |                         |  |  |  |  |  |
| a) ☐ The translation of the foreign language provisional application has been received.  15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.  |                         |  |  |  |  |  |
| Attachment(s)   |                         |  |  |  |  |  |
| <ol> <li>Notice of References Cited (PTO-892)</li> <li>Notice of Draftsperson's Patent Drawing Review (PTO-948)</li> <li>Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4</li> </ol>  | 5) Notice of Informal I | y (PTO-413) Paper No(s) Patent Application (PTO-152) |  |  |  |  |



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#### **DETAILED ACTION**

# Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 2, 7, 8, 10, 11, 16 and 17 are rejected under 35 U.S.C. 102(e) as being anticipated by Steeg (U.S. Pat. No. 6493637).

Steeg teaches a method and apparatus for correlating behavior between two elements of a system to determine the presence of mutual interaction between the elements (see Abstract), comprising the steps and means of: measuring the behavior of two elements of a system over time with respect to mutual interaction, thereby producing two behavior functions (col. 6, lines 20-24; col. 50,lines 22-67 and col.51, lines 1-22); expressing a plurality of constraints for at least one of a plurality of theoretical distance c<sub>i</sub> between said behavior functions (col. 6, lines 26-36; col.23, lines 60-67; col. 24, lines 17-67 and col. 25, lines 1-43); and determining that said elements are behaving as mutually interacting elements where there exists a plurality of actual distance c<sub>i</sub> satisfies said constraints (col. 6, lines 37-47 and col. 52, lines 34-62). Steeg further teaches that: said expressing step comprises maintaining an upper bound and a



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lower bound on said theoretical distance c, and wherein said determining step comprises determining where said lower bound is smaller than or equal to said higher bound for any of said constraints (col. 7, lines 10-14; col. 24, lines 17-67; col. 25, lines 1-43 and col. 72 lines 15-17).

# Allowable Subject Matter

3. Claims 3-6, 12-15 and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

## Reasons for Allowance

4. The following is an examiner's statement of reasons for allowance:

The primary reason for the allowance of claims 3, 4, 12 and 13 is the claimed step and means of expressing each of said constraints using at least two time-consecutive samples ( $a_n$ ,  $a_{n+1}$ ) of one of said functions and at least one sample ( $b_n$ ) of the other of said functions that is time-intermediate said time-consecutive samples. It is this step found in each of the claims, as it is claimed in the combination, that has not been found, taught or suggested by the prior art of record which makes these claims allowable over the prior art.

The primary reason for the allowance of claims 5, 6, 14 and 15 is the claimed step and means of expressing each of said distances using at least two time-consecutive samples  $(a_n, a_{n+1})$  of one of said functions and at least one sample  $(b_n)$ 



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of the other of said functions that is time-intermediate said time-consecutive samples. It is this step found in each of the claims, as it is claimed in the combination, that has not been found, taught or suggested by the prior art of record which makes these claims allowable over the prior art.

The primary reason for the allowance of claims 9 and 18 is the claimed step and means of expressing each of said constraints using a plurality of samples  $a_n$  of one of said functions taken at times  $a^t_1$ ,  $a^t_2$  ...,  $a^t_n$ , a first plurality of time-consecutive samples  $b_n$  and a second plurality of time-consecutive samples  $b_n'$  of the other of said functions taken at times  $b^t_1$ ,  $b^t_2$  ...,  $b^t_n$ , wherein  $a^t_1 \le b^t_2 \le a^t_2 \le b^t_2 \le ...$   $a^t_n \le b^t_n$ ; and selecting each of said constraints from of a set of constraints defined by the pattern:

$$a_1 - b_1 \le c_1 \le a_2 - b_1$$
  
 $a_2 - b_2 \le c_2 \le min(a_2 - b_1 + P(b_2 + b_1), a_3 - b_2)$   
 $a_3 - b_3 \le c_3 \le min(a_2 - b_1 + P(b_3 + b_1), a_3 - b_2 + P(b_3 - b_2), a_4 - b_3).$ 

It is this limitation found in each of the claims, as it is claimed in the combination, that has not been found, taught or suggested by the prior art of record which makes these claims allowable over the prior art.

#### **Prior Art Citations**

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Turcott (U.S. Pat. No. 6527729) disclose a method for monitoring patient using acoustic sensor based on time-series correlation analysis technique.



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## **Contact Information**

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Xiuqin Sun whose telephone number is (703)305-3467. The examiner can normally be reached on 7:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on (703)308-3126. The fax phone numbers for the organization where this application or proceeding is assigned are (703)872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0956.

1)

November 7, 2003

John Barlow
Supervisory Patent Examiner
Technology Center 2800